IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Inventors:	Nobutaka KODAMA, et al.	Conf. No. 7756
Appln. No.:	12/345,423	Art Unit N/A
Filed:	December 29, 2008	Exr. N/A
For:	POWER-LINE CARRIER COMMUNICATION APPARATUS	

PRELIMINARY AMENDMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Prior to initial examination on the merits, please amend this application as follows:

IN THE CLAIMS

Please amend the claims to read as follows:

1-20. (Canceled).

21. (New) A communication apparatus for performing multicarrier communication with a communication device based on a carrier pattern, the carrier pattern identifying a plurality of sub-carriers for use in said multicarrier communication, said communication apparatus comprising:

a changing section that changes the carrier pattern by removing, from the plurality of sub-carriers for use in said multicarrier communication, a sub-carrier which has a degree of error which exceeds a threshold, to produce a changed carrier pattern;

a notification section that notifies said communication device of content of the changed carrier pattern; and

a transmission section that performs multicarrier communication with said communication device based on the changed carrier pattern responsive to said communication apparatus receiving, from said communication device, an indication that said communication device has changed a carrier pattern stored in said communication device.

22. (New) The communication apparatus according to claim 21, further comprising a threshold changing section that changes the threshold if said communication apparatus does not receive, from said communication device, the indication that said communication device has changed the carrier pattern stored in said communication device.

23. (New) The communication apparatus according to claim 22, wherein the threshold changing section increases the threshold.

24. (New) The communication apparatus according to claim 21, wherein the changing section changes the carrier pattern by changing a frequency position, the frequency position being processed by lapped orthogonal transformation.

25. (New) The communication apparatus according to claim 21, wherein the degree of error of the sub-carrier is a S/N ratio.

26. (New) The communication apparatus according to claim 21, wherein the transmission section performs multicarrier communication on a power line.

27. (New) The communication apparatus according to claim 21, wherein the transmission section performs multicarrier communication based on OFDM (Orthogonal Frequency Division Multiplexing).

28. (New) The communication apparatus according to claim 21, wherein the transmission section performs multicarrier communication based on a wavelet transform.

29. (New) A communication method performing multicarrier communication with a communication device based on a carrier pattern, the carrier pattern identifying a plurality of sub-carriers for use in said multicarrier communication, said communication method comprising:

changing the carrier pattern by removing, from the plurality of sub-carriers for use in said multicarrier communication, a sub-carrier which has a degree of error which exceeds a threshold to produce a changed carrier pattern;

notifying said communication device of content of the changed carrier pattern; and

performing multicarrier communication with said communication device based on the changed carrier pattern responsive to said communication apparatus receiving from said communication device an indication that said communication device has changed a carrier pattern stored in said communication device.

30. (New) A communication system, comprising:

a first communication apparatus; and

a second communication apparatus performing multicarrier communication with said first communication apparatus based on a carrier pattern, the carrier pattern identifying a plurality of sub-carriers for use in said multicarrier communication,

said first communication apparatus including:

a first changing section that changes the carrier pattern by removing, from the plurality of sub-carriers for use in said multicarrier communication, a sub-carrier which has a degree of errors which exceeds a threshold to produce a changed carrier pattern; and

a first notification section that notifies said second communication apparatus of content of the changed carrier pattern,

said second communication apparatus including:

a second changing section that changes a carrier pattern by removing, from the plurality of sub-carriers stored in said second communication device, a sub-carrier which has a degree of error which exceeds a threshold, responsive to said second communication

apparatus receiving from said first communication apparatus content of the changed carrier pattern notified from said first notification section of said first communication apparatus; and

a second notification section that notifies that the second changing section has changed the carrier pattern stored in said second communication apparatus,

said first communication apparatus further including:

a transmission section that performs multicarrier communication with said second communication apparatus based on the changed carrier pattern, responsive to said first communication apparatus receiving, from said second communication apparatus, an indication that said second communication apparatus has changed the carrier pattern stored in said second communication apparatus.

REMARKS

New claims 21-30 are presented in this continuing application in order to highlight further patentable aspects of this invention. Support for the new claims is located for example at paragraphs [0049]-[0065], [0067], and [0135],-[0138] of the published application, and Fig. 22, S14-S17, S23, and S24. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

Early and favorable consideration of this application is respectfully requested.

Respectfully submitted,

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